

BUREAU OF ENVIRONMENT CONFERENCE REPORT

SUBJECT: NHDOT Monthly Natural Resource Agency Coordination Meeting

DATE OF CONFERENCE: March 19, 2014

LOCATION OF CONFERENCE: John O. Morton Building

ATTENDED BY:

NHDOT

Christine Perron
Ron Crickard
Mark Hemmerlein
Kevin Nyhan
Cathy Goodman
Marc Laurin
Matt Urban
Randy Talon
Bob Landry*
Robert Hudson
Bill Saffian
Don Lyford
Wendy Johnson
Jim Kirouac
John Butler
Victoria Chase
Bob Juliano
Kathy Corliss
Nancy Spaulding
Tony Weatherbee

Army Corps of Engineers

Rich Roach
Michael Hicks
Norm Farris

EPA

Mark Kern

NHDES

Gino Infascelli
Lori Sommer
Gregg Comstock

**NH Natural Heritage
Bureau**

Melissa Coppola

NH Coastal Program

Chris Williams

Normandeau Associates

Erik Lema

FST Engineers

Kevin Gagne

The Smart Associates

Jennifer Riordan

GM2 Associates

Jen Mercer
Tom Levins

Tendercrop Farm

Tyler Matteson

City of Dover

Steve Bird

**Dover Open Lands
Committee**

Anna Boudreau

City of Portsmouth

Peter Britz

McFarland Johnson

Vicki Chase

Stantec

Jerry Fortin
Mike Leach

Maine DOT

Jeff Folsom*

Cianbro

Kaven Philbrook*

Figg Engineers

Jay Rohleder*

*via conference call

(When viewing these minutes online, click on an attendee to send an e-mail)

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NOTES ON CONFERENCE:**Finalization of January Meeting Minutes**

The January 15, 2014 meeting minutes were finalized.

Bennington, X-A001(096), 16030

Kevin Gagne of FST began by providing a brief background of the two project segments as extensions of a previously successful Phase I. Large-scale, color project plans were presented illustrating proposed roadway, crosswalk, and sidewalk changes. The plans included a located reference line for the nearby Contoocook River. A handout was provided that included a USGS topographic map with the project locus, and photographs of the project area which were keyed to the plan. The project includes extending cement sidewalks, granite curbing, and pavement from Phase I, north along Main Street and Antrim Road, and along Francetown Road. Other work includes installing a raised crosswalk south of the Bible Hill Road intersection to improve pedestrian safety, and reconfiguring the Bible Hill Road/Eaton Avenue/Antrim Road interchange to improve pedestrian safety and safety of turning vehicles.

Erik Lema of Normandeau provided an overview of potential natural resource impacts and correspondence with state, local and federal agencies. No wetland impacts are associated with the proposed project; therefore no DES Dredge and Fill permit is anticipated. A portion of the work along Main Street and Antrim Road is within the Protected Shoreland, and it is anticipated that the project will be eligible for a Shoreland Permit by Notification. The project will not impact the floodway or floodplain of the Contoocook River. Based on consultation with the NH Natural Heritage Bureau and US Fish & Wildlife Services, there are no anticipated species impacts. No conservation lands are in the vicinity of the project.

No concerns were raised with the project as proposed.

This project has not been previously discussed at a Monthly Natural Resource Agency Coordination Meeting.

Acworth, X-A001(226), 16301

Tom Levins provided an overview of the project, which involves the replacement of the existing NH Route 123A bridge over Bowers Brook in the Town of Acworth. The existing bridge was constructed in 1915 and is on the NHDOT Red List. The bridge suffered significant damage from a 2005 flood event. The current opening is insufficient to convey Q100 storm events; therefore, bridge rehabilitation is not a prudent option.

The project is currently at the 30% design stage. The proposed bridge opening would be increased from 11 feet to 27.5 feet. Bankfull width for Bowers Brook was determined to be 25 feet by Sean Sweeney, formerly of Horizons Engineering, as part of the Bowers Brook section of the Cold River Restoration Master Plan; the proposed bridge layout is in conformance with this plan. Stone fill is proposed for scour protection at the new bridge foundations.

The Town requested that traffic be maintained through the project area during construction. The detour is 22 miles and emergency services would be delayed by an unacceptable amount of time. The project site does not easily lend itself to phased construction since additional widening would be required, causing unnecessary impacts to adjacent properties. A temporary detour constructed to the south would instead be used to maintain traffic during construction. The detour would be completely removed once traffic is shifted to the new bridge, and the impacted properties would be restored to their existing condition.

Jenn Riordan provided an overview of the natural resources present and the proposed impacts. Existing wetland resources include Bowers Brook (bed and bank) and a small emergent wetland at the edge of a field near the temporary detour. The Cold River is located south and west of the project. Proposed wetland impacts would occur from the replacement of the existing bridge (construction of new abutments and placement of stone). No permanent wetland impacts associated with the temporary detour are proposed. Approximately 480 square feet of permanent bank impact and approximately 760 square feet of permanent bed impact are proposed. Temporary impacts include approximately 350 square feet of bank impact and 2,400 square feet of bed impact. The temporary impacts are assumed for the entire area within the proposed drainage easement. All permanent impacts are to the existing bed and banks near the bridge widening. The bridge would be widened to bankfull width which would create additional streambed. It is assumed that no additional wetland mitigation is required. The area of bed and bank that would be created by the bridge replacement/widening is approximately 970 square feet.

Most of the project is within the 100-year floodplain. No impacts to flood flows are anticipated. The bridge will be widened to convey the 100-year storm. Temporary fill in the floodplain will occur from the temporary detour during construction.

The segments of Bowers Brook and the Cold River that are located within the project area are listed as impaired for pH and are also identified as having flow regime alterations from stream bank modifications/destabilization. They also have a TMDL for *Escherichia coli*. There will only be a minor increase in impervious surface (approximately 4,300 SF) as a result of the proposed project.

The Cold River is a NH Designated River and is also subject to the Shoreland Water Quality Protection Act. Invasive species are present, particularly Japanese knotweed and honeysuckle on the banks of Bowers Brook.

There are no Natural Heritage Bureau records of listed species within the project vicinity. The Cold River is designated as Essential Fish Habitat for Atlantic salmon.

Rich Roach asked what type of temporary bridge would be constructed for the detour. T. Levins replied that the bridge construction details would be determined by the contractor, but the bridge would pass the 10-year storm and would be placed outside of jurisdictional wetland areas.

R. Roach asked how the temporary fill for the detour would be removed after construction. T. Levins replied that geotextile matting would be placed under the fill to help with removal. The area would be restored back to original elevations and conditions after construction is complete.

R. Roach asked about the project schedule. T. Levins replied that the project would likely be constructed in 2017 or 2018, depending on the timeframe required to acquire the necessary property rights.

There was a discussion about the requirements for threatened and endangered species review. It was determined that the US Fish and Wildlife Service's IPaC website should be used in addition to coordinating with the NH Natural Heritage Bureau.

This project has not been previously discussed at a Monthly Natural Resource Agency Coordination Meeting.

Stewartstown, NH-Canaan, VT, A000(984), 15838

Bill Saffian gave a brief description of the project. The single-span arch bridge over the Connecticut River linking Stewartstown, NH to Canaan, VT (village of Beecher Falls) will be rehabilitated. To improve the load rating and repair the deteriorating condition of the bridge, the superstructure will be removed down to the arches. The members will be retained, rehabilitated, new bearing plates will be installed, and the superstructure will be replaced. The top cap of the abutment on the Vermont side will be replaced in kind, and the bridge deck will be replaced.

It is anticipated that the bridge will be accessed from the New Hampshire bank. Due to the steepness of the bank, a trestle will need to be constructed parallel to the bank starting from the church parking lot on Church Street, located approximately 300 feet south of the bridge. The trestle will extend along the bank to the bridge and will continue west to the middle of the river. The bank will need to be cleared of vegetation, with grubbing only expected along the church parking lot area and as needed in some small areas to perform spot leveling of the bank to establish the trestle. Grubbing will be restricted to above the ordinary high water. A cofferdam will be placed along the river. There may be an option for the work to be done from barges, however this may not be appropriate and ideas on the best way to access the bridge for construction are being informally discussed with a bridge contractor. The repairs to the Vermont abutment will be accessed from the river bank and adjacent property.

Melissa Coppola stated that dwarf wedgemussels are likely to be of concern, but she hasn't yet completed the Natural Heritage Bureau review. Rich Roach indicated that a Coast Guard permit may be required as the Connecticut River is navigable at that location. Lori Sommer asked that the bank be restored and planted with native floodplain species, ideally species that can be found in the immediate area. DOT will accommodate this request. Marc Laurin will inventory the existing vegetation to determine the appropriate plantings.

The project is scheduled to be advertised in October 2015 and will be reviewed again with the Resource Agencies as the design is further developed. M. Laurin stated that the project will be reviewed at the April 3rd Cultural Resource Coordination meeting. Matt Urban pointed out that this proposed work would involve maintaining an existing Tier 3 stream crossing and an alternative design, that includes a planting plan, would need to be submitted as part of the permit application package.

This project has not been previously discussed at a Monthly Natural Resource Agency Coordination Meeting.

Newington-Dover, NHS-027-1)37), 11238

Tyler Matteson of Tendercrop Farm (formerly Tuttle Farm) discussed their proposal to convert some standing timber located on the property to orchard and farmlands. This property is protected by a Conservation Easement and is a component of the wetland mitigation package developed by NHDOT for the widening of 3.5 miles of the Spaulding Turnpike in the Town of Newington and City of Dover. Tendercrop Farm's goal is to open up as much as can legally be done for agricultural usage. Constraints exist on the property such as a 150 foot buffer to a tidal creek, steep gullies and wetlands. The wetland delineations that were done by VHB in the early 2000s appear to be too conservative; as such new wetlands delineation of the property is being done. Regarding wetland impacts, T. Matteson anticipates only needing a minimum impact forestry notification for crossing wetlands for forestry purposes. The proposal includes establishing a pick-your-own apple orchard and some pasture land. The clearing performed would stump to grade and no grubbing would occur in wetlands. No pasture or orchard would be located in wetlands. Approximately 30 acres of wooded areas would be cleared and some wooded areas would remain. The areas that would be cleared were previously farmed in the 1950s.

Rich Roach provided background of the conservation of the Farm as mitigation for the Spaulding Turnpike widening. The City of Dover, NHDOT, and Strafford Rivers Conservancy need to approve this change in use. The extents of the wetlands need to be defined, and the Corps needs to decide if the proposal complies with the permit and if resource agencies concur. Mark Kern stated that the proposal should not just protect wetlands, but also retain buffers to streams. T. Matteson indicated that the farm is about 130 acres in size and that the proposal would likely clear about 30 more acres (40 acres is currently farmed). A forest management plan is being done. Lori Sommer asked that this plan be submitted to the resource agencies. R. Roach stated that part of the intent of the conservation easement was to maintain the working farm. The resource agencies will need to determine if the proposal complies with the easement. The resource agencies agreed to this easement knowing that they would have input in future land use.

Steve Bird stated that ultimately this will be the City of Dover's decision and that he values input from NHDOT, Strafford Rivers Conservancy, and the resource agencies. Protection of the farm is welcomed; however the City does have concerns regarding the amount of trees being removed, wetlands impacts and nitrogen loading from runoff from the proposed pasture. The wetland delineation, as well as the forest and agricultural management plans from Tendercrop Farm, need to be submitted. R. Roach feels that the proposal will need to be further discussed, but he is confident that an agreement could be reached. M. Kern wants it to be a balanced plan and supports keeping the current farmlands and forested areas as they are. He expressed concern that wetland mitigation funds were used for protection of this property, and supporting the conversion of existing forest into farmlands is not the best use of limited preservation funds. He does not think that this type of easement would be appropriate for future wetland mitigation monies, and future easement language should change to reflect this. Anna Boudreau stated that when this easement was established it was known that the property would remain as a working farm. However, one cannot tell if the conversion meets the easement requirements until the wetlands delineation is completed and the agricultural management plan is reviewed.

T. Matteson stated that the management plan is presently very general and will be updated to include protection measures to wetlands and streams, especially concerning limiting cattle impacts through fencing them from sensitive areas. This plan will be provided to the City who will share with the NHDOT, Strafford Rivers Conservancy, and the resource agencies. A field review will be planned after the snow has melted for all to evaluate the proposal.

This project was previously reviewed on the following dates: 4/16/2003, 7/16/2003, 4/21/2004, 6/23/2004, 1/19/2005, 4/20/2005, 7/20/2005, 8/17/2005, 11/2/2005, 12/14/2005, 2/21/2006, 3/21/2007, 10/15/2008, 8/19/2009, 8/17/2011, 3/21/2012.

Bedford, X-A000(143), 13953

John Butler provided a description of the project. The widening of NH Route 101 is proposed to improve capacity and safety of the corridor. The project will widen NH 101 to 4 lanes with a 20 foot landscaped median island and with separate left turn lanes at the signalized intersections. Sidewalks, separated from the travel way by a 10 foot wide grass panel, will be constructed on both sides of NH 101 from Nashua Road to Wallace Road and only along the north side from Nashua Road to Old Bedford Road. J Butler described the preliminary impacts of the project to environmental resources. There are several large wetland areas located on both sides of the roadway, conservation lands, two DOT properties preserved as mitigation land, Riddle Brook, an unnamed brook and two tributaries to Bowman Brook located within the project area. To reduce wetland impacts, the median width will be reduced to as little as 8 feet and side slopes steepened to 2:1 in several areas. The project as proposed would impact approximately 4 acres of wetlands.

Wendy Johnson described the water quality treatment measures that are being developed to attain no net increase in pollutant loading. The widening, as currently shown, would increase the total impervious area of the corridor from $\pm 485,000$ to $\pm 667,000$ sq. ft. Due to the limited amount of undeveloped land available in the corridor, DOT is proposing Low Impact Development (LID) measures such as bio-retention and tree filters. Overall, the preliminary results, based on on-site pavement area only, indicate that Total Suspended Solids (TSS) can be reduced by 19%, with Phosphorus and Nitrogen respectively increasing by 4.2% and 6.7%. Infiltration and recharge measures that may further reduce pollutant loading are being assessed and will be dependent on the geotechnical information received. Pervious pavement was evaluated and cannot effectively be used within the project area.

Rich Roach and Mark Kern commented that these LID measures all require continued maintenance. W. Johnson stated that the DOT is aware of this commitment and this has been discussed with the Maintenance District office and the Commissioner's office for their concurrence. The majority of the maintenance requirements occur within the first two years after planting. To help in establishing the tree filters, the landscaping warranty from the Contractor would be increased to two years for the replacement and maintenance of plantings installed during construction, and salt tolerant plants would be installed. R. Roach opined that DOT may want to look at the bigger picture to improve water quality of the area, such as removing 5 to 6 acres of parking lots or converting them to pervious pavements. He emphasized that DOT should get the Town of Bedford involved in this discussion. W. Johnson stated that the Town may be interested in maintaining the landscaping as a Gateway feature for the Town. Mark Hemmerlein stated that the DOT preference is to investigate on-site measures before going off-site. Victoria Chase expressed concerns that DOT may not have legal status to impose restrictions on private properties. Gregg Comstock indicated that the pollutant loading calculations are very close to meeting the pre versus post loading requirements and acknowledged that maintenance issues will need to be addressed in the Water Quality Certificate. M. Hemmerlein reiterated that the design is still in its preliminary stages and further treatment measures may be possible upon further study.

The project is scheduled to be advertised in the fall of 2016. Lori Sommer asked what coordination has been done with the Town of Bedford, as she is aware of a McQuesten Brook restoration project being undertaken by the town, which may provide an opportunity for mitigation. Marc Laurin replied that he has reached out to the town and has asked them to contact him with any mitigation ideas they feel may be appropriate. A Public Informational Meeting will be held in early May. The Bedford Land Trust, which holds easements on conservation lands that will be impacted, will be attending the meeting to gain an understanding of the project and make suggestions for mitigation for the impacts to these conservation areas. The calculated ARM fund payment for approximately 4 acres of impacts would be \$757,826. Mark Kern stated that additionally the losses of acreage from the DOT mitigation properties would also need to be mitigated.

Melissa Coppola inquired as to the species of concern in the area. M. Laurin replied that he is aware that Blanding's turtle, wood turtle, and hognose snake have historically been identified in the vicinity of the project, and he would be coordinating with Fish and Game.

This project was previously reviewed on the following date: 9/18/2013.

Portsmouth, NH-Kittery, ME, A000(909), 15731

This project involves the replacement of the Sarah Mildred Long Bridge over the Piscataqua River in Portsmouth. Vicki Chase introduced the project. McFarland Johnson is assisting with permitting on the NH side of the bridge. Maine DOT is the lead on the project, and is handling the Coast Guard permit, NEPA document, and all Maine permits.

60% plans were recently completed. The proposed bridge is on a new alignment, which was adjusted to improve the navigational channel skew and minimize impacts to the NH Port Authority. It also has a larger opening between the lift towers (300') to improve navigability. For the substructure, deepwater piers were minimized to the extent possible to minimize cost and to minimize the potential for vessel collision. Proposed are three piers are on shallow spread footings, two deepwater shared piers, and four railroad piers. In addition, the tower for the lift span has eight ten-foot drilled shaft piers and a fender system attached to the tower footings that sit in the water over the piers.

The bridge is a concrete segmental bridge with box girder construction. The maximum span length (320' for the vehicle spans, 160' for railroad spans) was chosen as the best compromise to minimize cost and natural resource impacts. The first proposed bridge footings will sit in North Mill Pond, a tidal mudflat, and a "Special Aquatic Site" under the Clean Water Act, which in New Hampshire necessitates an Individual Permit for the Army Corps. (Otherwise, the threshold for an Individual Permit for impact to navigable waters is one acre.)

The proposed wetland impact plans were reviewed. A temporary causeway is proposed in North Mill Pond for construction and demolition, along with platforms for crane access. In total, the use of temporary causeways versus temporary trestles would save \$1.7 million. There are temporary impacts in order to construct a trestle for portions of the bridge, temporary impacts to the tidal buffer and temporary impacts related to bridge demolition.

Mike Hicks asked if North Mill Pond is indeed a mudflat. Based on the definition provided in the Clean Water Act it does seem to fit the definition.

Rich Roach asked if the temporary causeway had been included in the Coast Guard permit. Jeff Folsom reported that yes, it was added to their permit. R. Roach said there would need to be an Alternatives Analysis provided for the causeway to demonstrate that the causeway is the Least Environmentally Damaging Practicable Alternative, and asked what the cost of the entire bridge project was. The estimated cost is \$160 million. R. Roach suggested that the Alternatives Analysis for the causeway should be in Federal Highway's NEPA document.

Pier removal was discussed. There was a question about the treatment of the areas where the piers will be removed. These piers will be excavated to one foot below grade. An impact credit will be taken for areas where the piers will be removed. (Total impact credit will be 694 square feet).

The construction schedule was reviewed:

Winter 2014-2015 Trestles, causeways, bridge abutments, Piers PV1-PV3

Summer 2015 Roadway and railroad construction

Winter 2015-16 Other piers and tower in water work

Summer 2016 Superstructure, tower structure

Winter 2016-2017 Railroad, tower, bridge superstructure demo, trestle and causeway removal

Summer 2017 Bridge utilities, bridge decks, submarine cables, bridge substructure demo, trestle removal, lift span float -in

November 2017 Bridge open

Winter 2017-2018 Dredge NH Port Expansion

Summer 2018 Bridge Project Completion

R. Roach asked when permit applications would be submitted. Some design elements have continued to change, such as the plan for treatment of the submarine cables (buried with concrete mats, rather than trenched and buried). R. Roach asked if the submarine cables were necessary and if overhead wiring were a

possibility. J. Folsom said that other means of powering the towers had been considered but that the submarine cables were determined to be the most efficient and reliable.

The Army Corps permit application being prepared would be for the New Hampshire side only. The work in Maine would fall under Maine's Programmatic General Permit, and would not require an Individual Permit. *Subsequent to this meeting, however, it was determined that the Individual Army Corps permit application would be prepared for both Maine and New Hampshire.* The proposed bridge will have an impact on the existing wharf, and as compensation for the functional impact the project will include dredge in front of the Port Authority wharf and an extension to be built on the northern end of the wharf. These projects will be submitted as part of a separate permit application, both a separate Army Corps Individual permit and a separate NH Wetlands Bureau permit.

A discussion of the mitigation for the two projects followed. R. Roach said that the Army Corps typically wouldn't require mitigation for the pier construction. V. Chase said that DOT would probably not be relieved of the obligation for mitigation for the bridge under NHDES's rules, and suggested a follow up meeting to discuss mitigation. For each project, an Individual Army Corps permit, NHDES wetland permit, an individual 401 water quality certification, a shoreland permit, and a Coastal Zone consistency certificate will be submitted.

The mitigation proposed for Cutts Cove (presented at the January 15, 2014 meeting) was discussed. Net dredge / fill requirements still have to be calculated for the mitigation area. The next steps for the project include the completion of the Essential Fish Habitat Assessment and Categorical Exclusion, both of which will be submitted by Maine DOT.

Lori Sommer asked what the timing of the mitigation construction would be. Bob Landry said that the winter construction start was in part to accommodate fisheries restrictions. Timing of the mitigation construction would be determined by when approvals were acquired.

Norm Farris asked if the dredge materials would be used in mitigation construction. The current plan is to use both the dredge spoils from the bridge and the dredge spoils from the wharf in mitigation construction. These dredge spoils would be made available over a two year period, so materials will need to be stored. R. Roach thinks the timeframe is too short for getting a mitigation plan approved in order to approve the Army Corps permit for the bridge construction. He suggested that an in-lieu fee might be appropriate for the bridge construction and that the Cutts Cove mitigation might be more appropriate for the Port Authority dredge and wharf extension. The Port Authority also has already completed mitigation for a permit that was never acted on, although a portion of that mitigation (eelgrass restoration) ultimately failed.

It was agreed that a meeting to discuss mitigation timing and requirements would be needed (later set for April 1, 2014 at NHDES).

This project was previously reviewed on the following dates: 6/19/2013, 9/18/2013, 1/15/2014.

Barnstead, X-A001(174), 14121E

Kathy Corliss presented this project, which involves safety improvements and the reconstruction of the intersection of NH Route 28 with Peacham Road and White Oak Road in the town of Barnstead. The proposed reconstruction of NH Route 28 begins approximately 3,400 feet south of Peacham Road and White Oak Road, and extends north approximately 4,600 feet. Turn lanes will be constructed on NH Route 28 to provide exclusive right and left turn lanes in the northbound direction, and an exclusive left and a shared thru/right lane in the southbound direction. The improvements to Peacham Road extend approximately 800 feet east of the intersection. The improvements to White Oak Road extend

approximately 900 feet west of the intersection. In addition, the approaches of White Oak Road, Yield Road, and Lake Shore Drive will be modified to eliminate the connection of Yield Road and Lake Shore Drive with NH Route 28. Instead, these roads will be united just to the west of NH Route 28, with a single connection to White Oak Road. Improvements to Lake Shore Drive extend approximately 300 feet west of its current intersection with NH Route 28

Kevin Nyhan described the anticipated environmental impacts as follows:

- Wetland impacts are anticipated to be approximately 22,000 sf for the purposes of upgrading drainage structures and for realigning the roadway.
- Wetland mitigation will likely be required for this project. Kevin contacted the Conservation Commission on mitigation opportunities on February 6, 2014, as well as discussing the need for mitigation at past public meetings. No response has been received. As such, the Department will propose to make an ARM fund payment (approx. \$73,000.00).
- Proposed work will require a Storm Water Pollution Prevention Plan pursuant to the EPA Construction General Permit.
- Lower Suncook Lake is approximately 750 feet away from the project area. It is impaired for dissolved oxygen. There are no direct drainage contributions and it is not anticipated that there would be impacts to Lower Suncook Lake.
- The impacts exceed the threshold for coverage under the Alteration of Terrain rules, which require the consideration of permanent water quality treatment measures in the project design. These will be considered during the final design phase.
- Invasive plants, including Japanese barberry, burning bush, multiflora rose, and glossy buckthorn, are located in the project area and Best Management Practices will be used during construction to prevent their spread.
- There are no NH Natural Heritage Bureau records in the project area.
- There is one stream crossing in the project area that will likely be affected by the work. The Department will evaluate this during final design.

Gino Infascelli commented that, based on the aerial photo, he thought an intermittent stream was located in the project area to the west, flowing into Lower Suncook Lake. K. Nyhan responded that the Department would look at that location.

This project has not been previously discussed at a Monthly Natural Resource Agency Coordination Meeting.

Farmington, X-A001(092), 16212

Cathy Goodmen and Nancy Spaulding provided an overview of the project. The project proposes to add a two-way left turn lane on NH Route 11 to tie into the existing two-way left turn lane southeast of the intersection with Main Street (NH Route 153). The turn lane would extend southerly approximately 3500 feet. A centerline rumble strip is also proposed from the southeasterly end of the proposed two-way left turn lane to the Rochester town line. The Cochecho River is located to the east of the project and the Rattlesnake River runs under NH Route 11 within the project area. There are no known species or communities of concern in the project area.

There are currently 10-foot and 8-foot shoulders in the project area. The two-way left turn lane would be added by narrowing the shoulders to 5 feet and 4 feet. Earthwork would be minimal and would consist primarily of slope work and clearing of vegetation along the shoulders. No work in any wetland or surface water would be required.

Subsequent to the meeting, it was determined that the Rattlesnake River is not subject to Shoreland Protection; however, part of the project is located within the protected shoreland of the Cocheco River and will require a Shoreland Permit By Notification.

No concerns were raised about the project as proposed.

This project has not been previously discussed at a Monthly Natural Resource Agency Coordination Meeting.

Lyme, NH-Thetford, VT, A000(394), 14460

Michael Leach provided an overview of the project, which involves the rehabilitation of the bridge located over the Connecticut River between Lyme, NH and Thetford, VT. It is expected that work would be conducted over two seasons. During the first season, elements of the bridge structure, including pier and abutment repairs, would be completed. The second season would consist of cleaning and painting the bridge superstructure. Minor roadway approach work will also be completed, including repairs and replacement of guardrail. During construction, the bridge would be closed each season and traffic detoured north to the Orford, NH –Fairlee, VT crossing (approximately 16 miles) and south to the Hanover, NH – Lewiston, VT crossing (approximately 21 miles).

The bridge rehabilitation is anticipated to include the following:

- Stringers: Some stringers are severely deteriorated and require replacement; stringers and floor beams are still being studied to determine which can be saved and which need to be replaced.
- Concrete Deck: Replacement of entire deck is anticipated pending results of the bridge rating analysis.
- Bridge Rail: The existing rail system is severely deteriorated; replacement anticipated.
- Steel Curb: The existing curb is deteriorated in several places; replacement anticipated.
- Abutment work: Vermont abutment is deteriorated and concrete repairs are anticipated.
- Pier: The pier is severely deteriorated with spalling, cracked concrete and exposed rebar notably along the waterline; repair and replacement options are currently under investigation.
- Overall: The steel structure needs cleaning and painting.

M. Leach noted that the NH Natural Heritage Bureau indicated dwarf wedgemussels could be present in the river, and Stantec is conducting a literature review of the available dwarf mussel surveys and reports conducted along the river. The information indicates the mussels are present upstream of the project. Melissa Coppola recommended coordinating with Susi Von Oettingen at US Fish and Wildlife Service about the mussels, and also noted that the Natural Heritage Bureau review was more than a year old and would need to be updated. M. Leach noted that it would be done.

Rich Roach asked if the pier would be cribbed during construction. Gerard Fortin noted that the pier work is still being studied. The water depth at the pier is 20-30 feet, which makes it difficult for construction. The pier could be repaired or replaced but that has not been determined at this time.

Christine Perron asked when the project was scheduled to advertise. G. Fortin noted that the project was scheduled to advertise in 2017. Subsequent to the meeting, Stantec learned from the NHDOT Bureau of Bridge Design that the advertising date was moved to 2022. The project will be discussed at a future meeting as design progresses.

This project has not been previously discussed at a Monthly Natural Resource Agency Coordination Meeting.

Brookfield, non-federal, 29038

Tony Weatherbee provided an overview of the project. The project involves the replacement of Bridge 107/079, which carries Governor's Road over Churchill Brook. The Department proposes to replace the existing 20' span by 24' wide concrete slab with a 20' span by 31'-4" wide concrete slab and to place 4' of riprap in front of the substructure. It is a tier 3 stream crossing. Replacing the deck in kind was considered but it would not reduce the environmental impacts because the widening is taking place over the existing wingwalls. Placing a concrete invert rather than riprap was considered but the environmental impacts were larger and an invert in this location is not warranted.

Rich Roach asked if the riprap would constrict the flow. T. Weatherbee said the riprap would not constrict the flow because it will be keyed into the existing riverbed. The substructure would not be faced so the flow would not be constricted.

Mark Kern asked how old the structure was and T. Weatherbee said it was built in 1940.

Gino Infascelli stated that the NWI shows wetlands upstream that are not shown on the plan, and he asked who did the delineation. T. Weatherbee said that the delineation was done by FB Environmental. A possible vernal pool was identified to the northwest of the bridge, but it is located outside the project area. Christine Perron asked when the delineation was done and T. Weatherbee said that it was done in the fall of 2013. G. Infascelli said that it is only an issue if there will be impacts. T. Weatherbee said that a proper delineation is needed before we could know what areas would be impacted, and also to determine where to properly locate a sediment basin. *Subsequent to the meeting, it was confirmed that the consultant did review the area in question and determined that wetlands were not present within the project area.*

G. Infascelli asked if the riprap was for scour and T. Weatherbee said yes.

G. Infascelli concurred that no mitigation would be required for the work as proposed.

This project has not been previously discussed at a Monthly Natural Resource Agency Coordination Meeting.

Lempster, non-federal, 29030

Tony Weatherbee provided an overview of the project. The project involves the rehabilitation of Bridge 119/151, which carries NH Route 10 over Cold Brook. The structure is an 8'-4" tall by 12'-10" wide metal pipe arch. The Department proposes to place a 6" concrete invert in the existing pipe. After coordinating with John Magee at NH Fish & Game, it was determined that a fish weir would not be required because the pipe is low enough that the 6" invert would not create a perched condition.

G. Infascelli concurred that no mitigation would be required. No concerns were raised with the project as proposed.

This project has not been previously discussed at a Monthly Natural Resource Agency Coordination Meeting.

Belmont, non-federal, 14285

Tony Weatherbee provided an overview of the project. The project involves the rehabilitation of Bridge 098/062, which carries Shaker Road over Pumping Station Brook. The structure is a 12' wide metal pipe arch. This is a Tier 3 stream crossing. The Department proposes to place a 6" concrete invert in the existing pipe, and cutoff walls and riprap in front of the structure.

A fish weir is being considered downstream of the structure and coordination has been taking place with John Magee. However, there are concerns that raising the water elevation with a fish weir could cause a problem for a building that is located close to the stream. G. Infascelli suggested that the Department could instead taper down the riprap at the outlet rather than build a traditional fish weir, and perhaps a notch could be installed in the center of the riprap that fish could use to get into the pipe. G. Infascelli also stated that if fish passage could not be accommodated, then mitigation would need to be discussed. He asked that the Department keep him informed as to what is done here before the application is submitted.

This project has not been previously discussed at a Monthly Natural Resource Agency Coordination Meeting.